



PATENT ABSTRACTS OF JAPAN

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G06T 1/00(21) Application number: **2000167805**(22) Date of filing: **05.06.2000**(71) Applicant: **OLYMPUS OPTICAL CO LTD**(72) Inventor: **KODAIRA YOSHIHIRO**(54) **ULTRASONIC DIAGNOSING DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To improve the picture quality of an ultrasonic image by constituting an ultrasonic diagnosing device in such a manner that a distal point noise is reduced regardless of a scanning method, and an optimal space filter process in response to a distance can be performed so that the resolution for a proximal point may not deteriorate as well.

SOLUTION: This ultrasonic diagnosing device 1 displays an ultrasonic image based on two-dimensional information obtained by scanning an ultrasonic oscillator 2 which transmits/receives an ultrasonic wave on a subject. In this case, a space filter processing circuit 10 is equipped with a space filter which is arranged in a front stage of a coordinate converting circuit 12, and reduces noises for a signal being output from the ultrasonic oscillator 2. A control circuit 14 controls a factor at the time of the space filter processing by the space filter in a manner to change from the vicinity of the oscillator surface of sound ray data in the direction to the distal point. That is, the space filter process is performed for the sound ray data before being converted into coordinates, and also the factor of the filter process is changed in response to the distance

of the sound ray data. Thus, an image of which the picture quality is improved can be obtained. Also, the degree of penetration a deep section is increased by improving S/N of the distal point, into the diagnosing efficiency can be increased as well.

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